

OUTLOOK

Commentary and Opinion

SUNDAY, MAY 10, 1992

Undoing the Doomsday Machine

How 'Manhattan Project II' Could Create a Nuclear World Order

By Daniel Ellsberg

THE EVENTS of the last nine months have created conditions that make 1992, the 50th anniversary of the Manhattan Project, just the time to launch a very different version of the original. Call it Manhattan Project II, aimed to undo the legacy of the first as completely as possible: to reduce nuclear weapons and the danger of nuclear war to near zero by the end of the century.

The era of nuclear threats should have ended with the Cold War's end, but that is not what is happening. The superpower arms race has come to a close, but a newly dangerous era of nuclear proliferation may be about to accelerate.

As many have noted in recent months, the breakup of the Soviet Union brings the possibility of a metastasis of nuclear expertise, materials, technology and weaponry. The danger of a crisis erupting into global nuclear Armageddon has diminished drastically with the disappearance of the Warsaw Pact. But that very fact, reducing inhibitions against making or carrying out nuclear threats, may actually increase the likelihood of accidents, terrorism or regional nuclear wars.

To avert such catastrophes as a nuclear war between former Soviet states or between India and Pakistan, a dramatic and comprehensive package of coordinated changes in policies and programs is required from the United States. The changes should express the American desire to make a decisive shift in our relation to nuclear weapons. Designing and implementing such a package calls for a focused effort of the highest urgency, reminiscent of the one that launched the nuclear era a half-century ago: the original Manhattan Project.

Fifty years ago, the pressure came from the prospect of a Nazi bomb. Now, as the example of the Iraqi nuclear program warns, the alternative to a successful Manhattan Project II may be a global profusion of new Manhattan Projects.

No new effort can uninvent nuclear weapons, nor can it prevent a later resumption of a nuclear arms race; even physically eliminating all weapons in national stockpiles could not assure that. But it does not follow that anything remotely like the existing arsenals or levels of danger should be tolerated any longer.

In the long run, is total abolition of nuclear weapons feasible? It is too soon to answer that. But if it is too early to make abolition an immediate goal, it is not too early to address the question.

THE long-run tasks of the project must include an effort to explore the conditions that could make a zero-nuclear-weapons world feasible. But long before conditions for total elimination can be met or even agreed on, other important goals are attainable if the political will can be organized. These must be the main focus of this new Manhattan project.

In contrast to the secretive original, Manhattan Project II must be overt and international, with Third World participation. Some countries might collaborate at a high governmental level, but U.S. participants will have to organize outside of government, at least at first.

This is true despite the momentum of current reciprocal disarmament measures. Welcome as they are, none of the Reagan-Bush-Gorbachev-Yeltsin proposals (particularly on the U.S. side) shows a decisive shift away from Cold War notions of the broad functions of and requirements for nuclear weapons in "superpower" arsenals. And none adopts a posture that discourages proliferation.

Indeed, U.S. policies that encourage proliferation persist. The United States still tests nuclear warheads, insists on its freedom to make first-use threats or to initiate nuclear attacks and proposes to maintain nuclear "superiority" indefinitely, with an arsenal of thousands of warheads. The United States therefore is in no position to ask any country to forgo nuclear weapons altogether, to ask other nuclear states to restrain their buildup or use of threats, or to expect adequate international collaboration on enforcement.

The current "supply side" approach to curtailing proliferation—trying to close off technological access to nuclear weapons—cannot succeed by itself. Manhattan Project II must seek changes in those U.S. policies that increase the demand for expanded nuclear arsenals. Such changes will depend on developing a new way of thinking about nuclear weapons among U.S. officials and citizens.

The U.S. government must come to accept that the only legitimate function for nuclear weapons is to deter nuclear attack. As a corollary, the United States should join the Commonwealth of Independent States and most of the non-nuclear states of the world in condemning threats to initiate nuclear attack. Similarly, America should join the 82 nations in the United Nations that in 1981 declared actual first-use of nuclear weapons "the gravest crime against humanity."

There has been wide debate on what forces are required for the sole function of deterrence, but the discussion usually ends up on the high side. Yet Herbert York, the first director of the Lawrence Livermore National Laboratory, argued in a talk last year at the lab that the number of survivable weapons needed to deter the kind of adversary who can be deterred is far below the level of the 1,000 frequently mentioned. He suggested the number is "somewhere in the range of one, 10 or 100," and "closer to one than it is to 100."

Nuclear weapons not needed for the purpose of deterring nuclear attack should be eliminated from the arsenals of all nuclear states, starting with the United States and Russia. For the latter states, by most reasonable estimates, that means eliminating more than 95 percent of current stockpiles. By York's standard, it means cutting more than 99 percent.

Practical solutions for freeing the world from nuclear threats (and of nearly all of its nuclear weapons) need to be varied, coordinated and bold. Indeed, it is the complexity of the proposed tasks, and their urgency, that suggest the original Manhattan Project as a model—even though the obstacles to nuclear disarmament are more psychological and political than technological.

The 1942 project, after an earlier gestation period of three years, designed and delivered a bomb in three more. The Manhattan Project II schedule that follows exemplifies the kind of planning and recommendations the new project might produce: It starts with changes in U.S. policy that are prerequisite to more general change.

As soon as possible, the U.S. government should propose registering and tagging all nuclear weapons, including its own. To set a model for reciprocal transparency, U.S. facilities should be subject to the same verification procedures that should be expected of the Commonwealth republics and other nuclear states.

Before the current Russian testing moratorium ends in October, the United States should join it and negotiate a permanent comprehensive test ban. As a less preferable alternative, America should commit itself to a permanent end to testing by 1995, which would allow time for the limited number of tests—under 12—believed by some to be needed for stockpile safety.

The next target date might be the end of 1993, a year into a new presidential term. By that time, the United States should adopt the principle of no-first-use—rejecting in principle and in practice nuclear weapons as instruments of policy or warfare. The remaining devices should be devoted to the single function of deterring nuclear attack.

Also by that time, there should be a U.S. commitment to disable and dismantle—not merely withdraw from deployment—all tactical nuclear weapons, air-launched as well as sea- and land-based. In addition, the United States should commit itself not to resume production of weapons-grade fissionable materials, and to put under international safeguards fissile materials recovered from warheads dismantled in the reduction process. It should seek comparable commitments from other nuclear states.

The United States should also commit itself to the provisions of the Anti-Ballistic Missile Treaty, narrowly interpreted. It should eliminate multiple warhead (MIRVed) land-based missiles and existing silo-busting submarine-based warheads, and it should seek a mutual interim ceiling on total U.S. and Russian strategic weapons of no more than 1,000 warheads.

The three-year period of the original Manhattan Project suggests the next target date, 1995—the 50th anniversary of the Alamogordo test and the bombing of Hiroshima and

Nagasaki. It is also the year of the Nuclear Non-Proliferation Treaty (NPT) review conference, which could mark the beginning of the end of the nonproliferation regime if the programs described here are not achieved.

Mid-1995, by this timetable, should be the deadline for all the nuclear states of the world to:

- Commit to reduce strategic warheads to 500 at most, and preferably 100 or less in all nuclear states by the year 2000.
- End nuclear testing permanently and sign a comprehensive test ban.
- Adopt the principle of no-first-use.
- Commit to abolish tactical weapons, which would be totally dismantled by the turn of the century.
- End production of weapons-grade fissile material—with its use banned from civilian facilities—and put all production facilities, civilian materials and fissile materials recovered in the disarmament process under strengthened IAEA safeguards.
- Adhere to the spirit and the letter of the NPT—seeking universal adherence to it, in the context of these changes—and agree to a greatly strengthened anti-proliferation regime.

Winning official support for such measures will take more than the equivalent of the Einstein-Szilard letter to FDR. But consider the reward: If these goals are reached by the end of the decade, the era of nuclear threats will have effectively ended with the millennium.

Daniel Ellsberg, a former Defense and State Department official, directs Manhattan Project II at Physicians for Social Responsibility. This article is adapted from the current issue of the Bulletin of Atomic Scientists.